CLAIMS:

1.   A method of modifying data in an encoded data signal comprising :

a) a decoding step for decoding said encoded data signal and providing a decoded data signal,

b) a re-encoding step performed on a modified data signal,

c) a step for providing a pixel-based residual signal, which is added to said decoded data signal, and which results from the difference between a predicted signal of an additional data signal and said additional data signal,

characterized in that it comprises :

d) a conversion step for providing a frequential residual signal resulting from the frequential conversion of said pixel-based residual signal, said frequential residual signal being added to said decoded data signal,

e) a sub-step for adding said frequential residual signal to said decoded data signal, so as to provide said modified data signal.

2.   A method as claimed in claim 1, in which an intermediate step is inserted between said decoding and re-encoding steps, comprising at least means for providing a motion-compensated signal from a coding error generated by said re-encoding step, characterized in that said motion-compensated signal is subtracted from said modified data signal before said re-encoding step.

3.   A method of modifying data in an encoded data signal comprising :

a) a decoding step for decoding said encoded data signal and providing a decoded data signal,

b) a re-encoding step performed on a modified data signal and generating a coding error,

c) an intermediate step inserted between said decoding and re-encoding steps, comprising at least a subtracting operation between said decoded data signal and a motion-compensated signal obtained from said coding error, said subtracting operation defining said modified data signal,

characterized in that it comprises sub-steps for inserting an additional data signal into said intermediate step.

4.   A method as claimed in claim 3 in which a definition step of a residual signal
5   is carried out, said residual signal resulting from the difference between said additional data signal and its predicted version, characterized in that said residual signal is subtracted from said motion-compensated signal by means of a subtracting sub-step.

5.   A method as claimed in claim 3, characterized in that :
10   a) said additional data signal is added to said coding error by means of an adding sub-step,
     b) said additional data signal is added to said decoded data signal by means of an adding sub-step.

6.   A method as claimed in claim 3, characterized in that :
15   a) said additional data signal is added to said coding error by means of an adding sub-step,
     b) said additional data signal is subtracted from said motion-compensated signal by means of a subtracting sub-step.

7.   A method of modifying data in an encoded data signal comprising :
20   a) a decoding step for decoding said encoded data signal and providing a decoded data signal,
     b) a re-encoding step performed on a modified data signal and generating a coding error,
     c) an intermediate step for obtaining a motion-compensated signal from said coding error, and comprising at least a subtracting sub-step between said decoded data signal and said
25   motion-compensated signal for providing said modified data signal,
     characterized in that it comprises a sub-step for adding an additional data signal to said modified data signal before said re-encoding step.

8.   A transcoding device for adding data to an encoded data signal, comprising :
30   a) decoding means for decoding said encoded data signal and providing a decoded data signal,
     b) re-encoding means acting on a modified data signal,

c) means for providing a pixel-based residual signal, which is added to said decoded data
signal and which results from the difference between a predicted signal of an additional
data signal and said additional data signal,

characterized in that it comprises :

5   d) conversion means for providing a frequential residual signal resulting from the
frequential conversion of said pixel-based residual signal, said frequential residual signal
being added to said decoded data signal,

e) means for adding said frequential residual signal to said decoded data signal, so as to
provide said modified data signal.

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9.   A transcoding device for adding data to an encoded data signal, comprising :

a) decoding means step for decoding said encoded data signal and providing a decoded data
signal,

b) re-encoding means acting on a modified data signal and generating a coding error,

15   c) an intermediate branch inserted between said decoding and re-encoding steps, comprising
at least a subtracting operation between said decoded data signal and a motion-
compensated signal obtained from said coding error, said subtracting operation defining
said modified data signal,

characterized in that it comprises data insertion means for inserting a modifying data signal

20   into said intermediate branch.

10.   A transcoding device for adding data to an encoded data signal, comprising :

a) decoding means for decoding said encoded data signal, and providing a decoded data
signal,

25   b) re-encoding means acting on a modified data signal and generating a coding error,

c) an intermediate branch for providing a motion-compensated signal from said coding
error, and comprising at least a subtracting sub-step between said decoded data signal and
said motion-compensated signal for generating said modified data signal,

characterized in that it comprises means for adding an additional data signal to said modified

30   data signal before re-encoding.

11.   A computer program product for a transcoding device for adding data to an
encoded data signal, which product comprises a set of instructions which, when loaded into
said device, causes said device to carry out any method as claimed in claim 1 or 7.